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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/758,946

01/16/2004

Richard A. Marando

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7590

11/03/2006

MACMILLAN, SOBANSKI & TODD, LLC
ONE MARITIME PLAZA - FIFTH FLOOR
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TOLEDO, OH 43604

EXAMINER

AFZALI, SARANG

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

NT

Office Action Summary	Application No.	Applicant(s)	
	10/758,946	MARANDO ET AL.	
	Examiner	Art Unit	
	Sarang Afzali	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4, 10, 14 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-13 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 0204 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>0329&1119/2004, 07052006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-20 in the reply filed on 8/8/2006 is acknowledged. Applicant's argument by amending claim 11 is found persuasive and therefore restriction requirement between two groups I and II is withdrawn.

Furthermore, Applicant's election of Species A is acknowledged.

2. Claims 4, 10, 14, and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/8/2006.

The requirement is still deemed proper and is therefore made FINAL.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A METHOD OF MANUFACTURING A NODE FOR CONNECTING VEHICLE FRAME MEMBERS".

Claim Objections

4. Claim 11 is objected to because of the following informalities:

On line 5, delete "and" at the end of the line after "insert;" and on line 6, add - - and - - at the end of the line after "members;".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5, 7, 8, 11-13, 15, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Mariman et al. (US 6,672,627).

As applied to claim 1, Mariman et al. teach a method of manufacturing a node for joining a plurality of structural members together comprising the steps of:

(a) providing an insert (steel sleeve 56, Fig. 3) having a node securing portion (knurled portion 62 of steel sleeve 56, Fig. 3) and a mounting portion (opposite end to the knurled portion of steel sleeve 56, Fig. 3) that is adapted to have a structural member secured thereto; and

(b) forming a node (aluminum coupler 50 including frame 52, Fig. 4) about the node securing portion of the insert for joining a plurality of structural members together.

As applied to claim 2, Mariman et al. teach that first material is steel and the second material is aluminum.

As applied to claim 3, Mariman et al. teach that step (a) is performed by providing the insert with a node securing portion having at least one aperture formed therein

(knurled portion 62, Fig. 3); and wherein said step (b) is performed by forming a portion of the node within the at least one aperture.

Note that the knurled portion of the insert includes peaks and valleys and by definition (see attached Compact Oxford Dictionary) the valleys between peaks of the knurled portion are considered gaps and apertures and the peaks are considered protrusions.

As applied to claim 5, Mariman et al. teach a further step (c) of securing a first structural member (first air line 32 on the top, Fig. 2) to the mounting portion of the insert and securing a second structural member (vertical standard 40 and air lines 34, Figs. 1 & 2) to the node (coupler 52, Fig. 2).

As applied to claim 7, Mariman et al. teach a method wherein said step (a) is performed by providing a plurality of inserts (two steel sleeves 56, Fig. 3), each of the inserts having a node securing portion and a mounting portion that is adapted to have a structural member secured thereto; and wherein said step (b) is performed by forming a node about each of the node securing portions of the inserts.

As applied to claim 8, Mariman et al. teach a method including the further step (c) of securing a structural member (air line 32, Fig. 2) to the mounting portion of each of the inserts.

As applied to claim 11, Mariman et al. teach a method comprising the steps of:

(a) providing an insert (steel sleeve 56, Fig. 3) having a node securing portion (knurled portion 62 of steel sleeve 56, Fig. 3) and a mounting portion (opposite end to knurled portion of steel sleeve 56, Fig. 3);

(b) forming a node (aluminum coupler 50 including frame 52, Fig. 4) about the node securing portion of the insert;

(c) providing a plurality of structural members (plurality of airlines 32, fig. 2); and

(d) securing the plurality of structural members to the node to form a vehicular body and frame assembly (Fig. 1).

Note that the air seeder (10, Fig. 1) comprises a seed cart (12) and a tilling implement (14) and by coupling airlines (32) to airlines (34) a complete air seeder (10) including vehicular body and frame assembly is formed.

As applied to claim 12, Mariman et al. teach that first material is steel and the second material is aluminum.

As applied to claim 13, Mariman et al. teach that step (a) is performed by providing the insert with a node securing portion having at least one aperture formed therein (knurled portion 62, Fig. 3); and wherein said step (b) is performed by forming a portion of the node within the at least one aperture.

Note that the knurled portion of the insert includes peaks and valleys and by definition (see attached Compact Oxford Dictionary) the valleys between peaks of the knurled portion are considered gaps and apertures and the peaks are considered protrusions.

As applied to claim 15, Mariman et al. teach a further step (c) of securing a first structural member (first air line 32 on the top, Fig. 2) to the mounting portion of the insert and securing a second structural member (vertical standard 40 and air lines 34, Figs. 1 & 2) to the node (coupler 52, Fig. 2).

As applied to claim 17, Mariman et al. teach a method by providing a plurality of inserts (plurality of steel sleeves 56, Fig. 3, each having a node securing portion (knurled portion 62 of steel sleeve 56, Fig. 3) and mounting portion (opposite end to the knurled portion of steel sleeve 56, Fig. 3) that is adapted to have a structural member secured thereto and forming a node (aluminum coupler 50 including frame 52, Fig. 4) about each of the node securing portions of the inserts.

As applied to claim 18, Mariman et al. teach a method by securing a structural member (lines 32 and 34, Fig. 2) to the mounting portion of each of the inserts (steel sleeve 56, Fig. 2).

7. Claims 1, 9, 11-13, 15, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by WO 02/04276.

As applied to claim 1, WO 02/04276 teaches a method of manufacturing a node for joining a plurality of structural members together comprising the steps of:

(a) providing an insert (junction element 2, Figs. 1 and 3) having a node securing portion (intermediate portion 2c, Fig. 3) and a mounting portion (the arms 2a with brackets 2g, Fig. 3) that is adapted to have a structural member secured thereto; and

(b) forming a node (interconnection element 1 including injection molded reinforcing grid 6 into the metal junction element 2, Fig. 1, page 4, lines 21-27) about the node securing portion of the insert for joining a plurality of structural members together.

Note that the forming of the node includes injection molding the reinforcing grid (6) about both the node securing portion (2c) and mounting portion (2a & 2g) of the insert (2).

As applied to claim 11, WO 02/04276 teaches a method of manufacturing comprising the steps of:

(a) providing an insert (junction element 2, Figs. 1 and 3) having a node securing portion (intermediate portion 2c, Fig. 3) and a mounting portion (the arms 2a with brackets 2g, Fig. 3);

(b) forming a node (interconnection element 1 including injection molded reinforcing grid 6 into the metal junction element 2, Fig. 1, page 4, lines 21-27) about the node securing portion of the insert ;

(c) providing a plurality of structural members (3, Fig. 3); and

(d) securing the plurality of structural members to the node to form a vehicular body and frame assembly (Fig. 1, page 1, lines 2-4).

As applied to claims 9 and 19, WO 02/04276 teaches a method of manufacturing wherein step (a) is performed by securing the mounting portion of the insert to a structural member (3, Fig. 3) before performing step (b) of forming the node (page 4, lines 21-27).

As applied to claim 12, WO 02/04276 teaches a method of manufacturing wherein the insert is formed from a first material (metallic junction element 2, page 3, lines 15-17) and that the node including reinforcing grid (6) is formed from a second material (thermoplastics material, page 4, lines 22-24).

As applied to claim 13, WO 02/04276 teaches a method of manufacturing wherein step (a) is performed by providing the insert with a node securing portion having at least one aperture formed therein (aperture 2f in the protrusion 2e, Fig. 3, page 2, lines 14-18); and wherein said step (b) is performed by forming a portion of the node within the at least one aperture.

As applied to claim 15, WO 02/04276 teaches a method of manufacturing wherein the first structural member (3, Fig. 3) is secured to the mounting portion (2a and 2g) and the second structural member (4, Fig. 1) is secured to the node (interconnection element 1 including injection molded reinforcing grid 6, Fig. 1)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Mariman et al. Mariman et al. teach the claimed invention with the exception of explicitly disclosing that initial movement of the first structural member both in lateral direction and in a rotational direction relative to the insert. However, it is known that when coupling two members that requires seating of one member into the other, it is necessary to jiggle and move at least one member in both lateral and rotational

directions in order to have a proper seating and effective coupling of the two members to each other. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have jiggled and moved a member of Mariman et al. in both lateral and rotational direction to provide an effective coupling of the joined members.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

10/26/2006



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SUPERVISORY PATENT EXAMINER

10/30/06